

REMARKS

Claims 1, 2, 6-8, 16, 17, 51-56, 58-60 and 79-85 are pending in this application. By this Amendment, claims 1, 6, 7, 16, 51, 54, 56, 59 and 79 are amended to more clearly distinguish over the applied references. Reconsideration in view of the forgoing amendments and following remarks is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution); and (c) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

The Office Action rejects claims 1, 6, 51 and 53-55 under 35 U.S.C. §102(b) over U.S. Patent No. 5,719,691 to Curtis et al. (hereinafter "Curtis"); and rejects claims 7, 16, 56, 59, 60, 79, 80 and 82 under 35 U.S.C. §103(a) over Curtis in view of U.S. Patent No. 3,573,362 to Burchardt (hereinafter "Burchardt") and further in view of U.S. Patent No. 6,272,095 to Liu et al. (hereinafter "Liu"). Applicant respectfully traverses the rejections.

In particular, Applicant submits that none of these references, either individually or in combination, discloses or suggests an optical information recording and reproducing apparatus for recording information in and reproducing information from an optical information recording medium having, *inter alia*, a reflecting film and comprising, a reproducing optical system for illuminating the information recording layer with the reference light for reproduction generated by the reproduction reference light generation means on the same side of the information recording layer that is illuminated with the information light and the

reference light for recording, as recited in each of independent claims 1, 6, 7, 16, 51, 54, 56, 59 and 79.

Curtis teaches a method of phase-correlation multiplex holography in which phase selectivity is used to differentiate overlapping images recorded using multiplex recording. However, Curtis does not teach that the optical information recording medium comprises a reflecting film or that the reproducing optical system illuminates the information recording layer on the same side as is illuminated with the information and reference lights.

Burchardt teaches an on axis reference beam method for forming carrier frequency holograms. However, like Curtis, Burchardt does not teach that the optical information recording medium comprises a reflective film. Moreover, in Burchardt, the reproduction light is detected on the opposite of the recording medium from the side on which the information and reference lights are illuminated. See Fig. 4 and the corresponding description at col. 9, lines 16-27 of Burchardt.

Liu teaches a holographic storage device for writing data to and reproducing data from an optical storage medium. However, in Liu, light passes through the optical storage medium 100. Therefore, the optical storage medium does not possess a reflective film. See Figs. 1 and 2 and the corresponding description at col. 18, lines 20-66. Furthermore, in contrast to the claimed invention, Liu illuminates the optical recording medium from two different sides in order to create holographic gratings in the holographic storage medium.

The invention defined by independent claims 1, 6, 7, 16, 51, 54, 56, 69 and 79 uses a reflecting film on one side of the optical recording medium. Therefore, during information recording operations, the information light and the reference light for recording pass through the information recording layer twice; once from the initial illumination and once from the reflection off of the reflecting film. Thus, the incident light is reflected back through the optical recording medium, increasing the intensity of the interference pattern. As a result of

this feature, the recording density in the optical recording medium can be increased. Support for this claimed feature can be found in the paragraph beginning at p. 48, line 16 of the specification of this application.

During reproducing operations of the present invention, light enters the recording medium from the same side as during recording operations. This enables the design of the optical storage device to remain compact since light only enters the medium from one direction. Moreover, because of the reflecting film, the reference light for reproducing passes through the optical storage medium twice, thereby increasing the rate at which reproduction light and thus, recorded information, can be detected. The cited references are incapable of achieving these benefits.

In view of the above noted distinctions, Applicant respectfully submits that the claims are patentable over the applied references. Accordingly, Applicant respectfully requests that the rejection of independent claims 1, 6, 7, 16, 51, 54, 56, 59, and 79, as well as dependent claims 53, 55, 60, 80 and 82 be withdrawn.

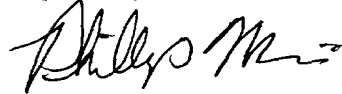
The Office Action rejects claims 2, 8, 17, 52 and 58 under 35 U.S.C. §103(a) over Curtins, Burchardt and Liu and further in view of either U.S. Patent 4,638,471 to van Rosmalen, U.S. Patent 4,213,193 to Reid et al. (hereinafter "Reid"), or U.S. Patent 5,777,760 to Hays et al. (hereinafter "Hays"); and rejects claims 81 and 83-85 under 35 U.S.C. §103(a) over Curtis, Burchardt and Liu and further in view of Reid. Applicant respectfully traverses the rejections.

Specifically, Applicant submits that neither van Rosmalen, Hays, nor Reid supply the deficiencies of Curtis, Burchardt, or Liu as discussed above. Accordingly, Applicant respectfully requests that the rejections of claims 2, 8, 17, 52, 58, 81 and 83-85 also be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



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